

## ABSTRACT

A magnetic core-coil assembly generates an ignition event in a spark ignition internal combustion system having at least one combustion chamber. The assembly comprises a magnetic core of amorphous metal having a primary coil for low voltage excitation and a secondary coil for a high voltage output to be fed to a spark plug. A high voltage is generated in the secondary coil within a short period of time following excitation thereof. The assembly senses spark ignition conditions in the combustion chamber to control the ignition event.